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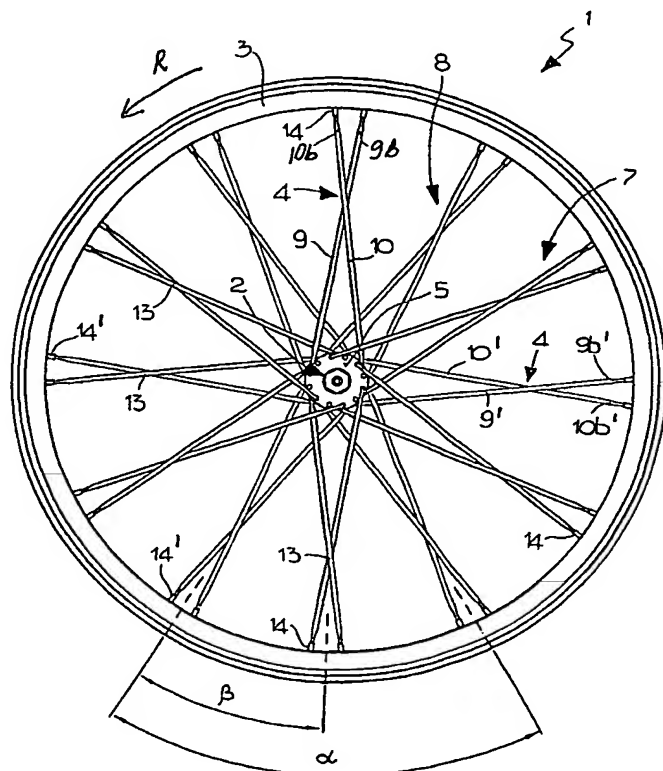
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[Continued on next page]

(54) Title: BICYCLE WHEEL



(57) Abstract: A bicycle wheel (1), in particular for racing and mountain bicycles, is provided which comprises a hub (2) and a rim (3) connected with by means of a plurality of radial elements (4). The radial elements (4) are grouped in a first distribution (7), in which said elements are arranged on one side of the wheel, and a second distribution (8), in which said elements are arranged on the other side of the wheel, said first and second distribution (7, 8) connecting said rim (3) to respective ends of said hub (2). The radial elements (4) of said first distribution (7) are connected to said rim (3) in respective fixing seats which are disposed alternate, along said rim, to the fixing seats of the radial elements of said second distribution (8).

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WO 2004/041552 A3



SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 03/037650 A (FIORAVANTI MORENO ; VUELTA INTERNAT S P A (IT)) 8 May 2003 (2003-05-08) claim 1; figure 4	1-4, 6, 7, 10
X	US 4 529 253 A (HO WEI K) 16 July 1985 (1985-07-16) figure 7	1-4, 6, 7
Y		5
Y	FR 1 047 016 A (DUCRET ETS) 10 December 1953 (1953-12-10) figure 3	5
A	DE 52 066 C (REYNOLDS CHARLES JAMES) 13 May 1890 (1890-05-13) figure 1	5
	----- -/-	

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>EP 1 201 458 A (CAMPAGNOLO SRL) 2 May 2002 (2002-05-02) claim 1; figures 1-6</p>	1-10

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03037650	A	08-05-2003	IT 8020010092 U1 CA 2452569 A1 DE 20220711 U1 DE 20220712 U1 WO 03037650 A1 EP 1412202 A1	02-05-2003 08-05-2003 15-01-2004 15-01-2004 08-05-2003 28-04-2004
US 4529253	A	16-07-1985	NONE	
FR 1047016	A	10-12-1953	NONE	
DE 52066	C		NONE	
EP 1201458	A	02-05-2002	IT T020001007 A1 IT T020010210 A1 AT 245547 T AU 7933101 A CN 1349900 A CZ 20012243 A3 DE 20121866 U1 DE 60100496 D1 DE 60100496 T2 EP 1201458 A1 EP 1332892 A2 JP 2002144801 A PT 1201458 T US 2002047302 A1	24-04-2002 09-09-2002 15-08-2003 02-05-2002 22-05-2002 12-06-2002 26-06-2003 28-08-2003 15-04-2004 02-05-2002 06-08-2003 22-05-2002 28-11-2003 25-04-2002

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